PCT

WORLD INTELLECTUAL PROPERTY ORGANIZATION International Bureau



INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(51) International Patent Classification 6:

C07K 7/06, A61K 38/08, C07K 1/00

A3 (11) International Publication Number: WO 97/22621

(43) International Publication Date: 26 June 1997 (26.06.97)

(21) International Application Number:

PCT/EP96/05518

(22) International Filing Date:

11 December 1996 (11.12.96)

(30) Priority Data:

08/573,422

15 December 1995 (15.12.95) US

(71) Applicant (for all designated States except US): BASF AK-TIENGESELLSCHAFT [DE/DE]; D-67056 Ludwigshafen (DE).

(72) Inventors; and

(75) Inventors/Applicants (for US only): AMBERG, Wilhelm [DE/DE]; Stettiner Ring 24, D-61381 Friedrichsdorf (DE). BARLOZZARI, Teresa [IT/US]; 24 South Woodside Avenue, Wellesley, MA 02181 (US). BERNARD, Harald [DE/DE]; Valentin-Ostertag-Strasse 2, D-67098 Bad Dürkheim (DE). BUSCHMANN, Ernst [DE/DE]; Georg-Ludwig-Krebs-Strasse 10, D-67069 Ludwigshafen (DE). HAUPT, Andreas [DE/US]; 2 Rosewood Place, Westborough, MA 01581 (US). HEGE, Hans-Guenther [DE/DE]; Dinkelackerring 29, D-67435 Neustadt (DE). JANSSEN, Bernd [DE/DE]; Leuschnerstrasse 18a, D-67063 Ludwigshafen (DE). KLING, Andreas [DE/DE]; Riegeler Weg 14, D-68239 Mannheim (DE). LIETZ, Helmut [DE/DE]; Raiffeisenstrasse 15, D-67435 Neustadt (DE). RITTER,

Kurt [DE/US]; 9 Burton Avenue, Newton, MA 02158 (US). ULLRICH, Martina [DE/DE]; Im Rappenbuckelweg 16, D-69198 Schriesheim (DE). WEYMANN, Jürgen [DE/DE]; Seebacher Strasse 23, D-67098 Bad Dürkheim (DE). ZIERKE, Thomas [DE/DE]; Akazienstrasse 12, D-67459 Böhl-Iggelheim (DE).

(74) Common Representative: BASF AKTIENGESELLSCHAFT; D-67056 Ludwigshafen (DE).

(81) Designated States: AU, BG, BR, CA, CN, CZ, GE, HU, IL, JP, KR, LV, MX, NO, NZ, PL, RO, RU, SG, SI, SK, TR, UA, US, Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE).

Published

With international search report.

Before the expiration of the time limit for amending the claims and to be republished in the event of the receipt of amendments.

(88) Date of publication of the international search report: 26 February 1998 (26.02.98)

(54) Title: ANTINEOPLASTIC PEPTIDES

(57) Abstract

Novel peptides of the following formula (I): R^1R^2N -CHX-CO-A-B-D-E-(G)_r-K in which R^1 , R^2 , A, B, D, E, G, K, X, and s have the meanings stated in the description, and the preparation thereof are described. The novel peptides have an antineoplastic effect.

FOR THE PURPOSES OF INFORMATION ONLY

Codes used to identify States party to the PCT on the front pages of pamphlets publishing international applications under the PCT.

AM	Armenia	GB	United Kingdom	MW	Malawi
ΑŤ	Austria	GE	Georgia	MX	Mexico
ΑU	Australia	GN	Guinea	NB	Niger
BB	Barbados	GR	Greece	NL	Netherlands
BE	Belgium	HU	Hungary	NO	Norway
BF	Burkina Faso	1E	Ircland	NZ	New Zealand
BG	Bulgaria	IT	Italy	PL	Poland
BJ	Benin	JP	Japan	PT	Portugal
BR	Brazil	KE	Kenya	RO	Romania
BY	Balerus	KG	Kyrgystan	RU	Russian Federation
CA	Canada	KP	Democratic People's Republic	SD	Sudan
CF	Central African Republic		of Korea	SE	Sweden
CG	Congo	KR	Republic of Korea	SG	Singapore
CH	Switzerland	KZ	Kazakhatan	Sī	Slovenia
CI	Côte d'Ivoire	Ll	Liechtonstein	SK	Slovakia
CM	Cameroon	LK	Sri Lanka	SN	Senegal
CN	China	LR	Liberia	SZ	Swaziland
CS	Czechoslovakia	LT	Lithuania	TD	Chad
CZ	Czech Republic	LU	Luxembourg	TG	Togo
DE	Germany	LV	Latvia	TJ	Tajikistan
DK	Denmark	MC	Monaco	TT	Trinidad and Tobago
RE	Batonia	MD	Republic of Moldova	UA	Ukraine
ES	Spain	MG	Madagascar	UG	Uganda
Fi	Finland	ML	Mali	US	United States of America
FR	Prance	MN	Mongolia	UZ	Uzbekistan
GA	Gabon	MR	Mauritania	VN	Viet Nam

INTERNATIONAL SEARCH REPORT

Intern. and Application No
PCT/EP 96/05518

		•	
A. CLASS IPC 6	ification f subject matter C07K7/06 A61K38/08 C07K1	/00	
According t	to International Patent Classification (IPC) or to both national class	ification and IPC	
	SEARCHED		
Minimum de IPC 6	coumentation searched (classification system followed by classifi CO7 K	oation symbols)	
Documenta	ition searched other than minimum documentation to the extent th	at auch doouments are inoluded	in the fields searched
Electronio d	data base consulted during the international search (name of data	base and, where practical, sear	oh terma used)
C. DOCUM	IENTS CONSIDERED TO BE RELEVANT		
Category *	Citation of document, with indication, where appropriate, of the	relevant passages	Relevant to plaim No.
Х	WO 93 23424 A (BASF AG ;HAUPT A (DE); EMLING FRANZ (DE); ROMERI CYNTHIA) 25 November 1993 see the whole document	ANDREAS DAHL	1-9
X	DE 44 15 998 A (BASF AG) 9 Nove see claims	ember 1995	1-9
E	WO 97 17364 A (BASF AG ;KLING A (DE); JANSSEN BERND (DE); AMBEI (D) 15 May 1997 see the whole document	1-9	
E	WO 96 40752 A (BASF AG) 19 Dece see claims	1-9	
Furt	ther documents are listed in the continuation of box C.	X Patent family month	ers are listed in annex.
"A" docume consider to filing of the course which citation "O" docume other to "P" docume tater to the course tater taken to the course tater taken tater taken ta	ant defining the general state of the art which is not dered to be of particular relevance document but published on or after the international date on the state of the state	or priority dabs and not cited to understand the invention "X" document of particular re- cannot be considered in involve an inventive six "Y" document of particular re- cannot be considered to document is combined.	emational search report
Name and r	mailing address of the ISA European Patent Office, P.B. 5818 Patentiaan 2 NL - 2280 HV Rijswijk Tel. (+31-70) 340-2040, Tx. 31 651 epo nl, Fax: (+31-70) 340-3016	Authorized officer Chakravani	ty, A

Form PCT/ISA/210 (second sheet) (July 1992)

['] 3

INTERNATIONAL SEARCH REPORT

International application No.

Pui/EP 96/05518

Box	Observations where certain claims were found unsearchable (Continuation of item 1 of first sheet)					
This Inte	ernational Search Report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:					
1.	Claims Nos.: because they relate to subject matter not required to be searched by this Authority, namely:					
2.	Claims Nos.: because they relate to parts of the International Application that do not comply with the prescribed requirements to such an extent that no meaningful international Search can be carried out, specifically:					
з. 📗	Claims Nos.: because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a).					
Box II	Observations where unity of invention is lacking (Continuation of Item 2 of Itrat sheet)					
1) 2) 3)	Claims 1-9 (partially): compounds where substituent 'K' is -NH-Cl-8-alkyl, -NH-C3-8-alkenyl and -NH-C3-8-alkinyl (assuming that alkinyl = alkynyl). Claims 1-4 and 7-9 (partially): subject matter where sustituent 'K' is -NH-C6-8-cyclöalkyl and -NH-C1-4-alkene-C3-8-cycloalkyl. Claims 1-9 (partially): all other subject matter As all required additional search fees were timely paid by the applicant, this International Search Report covers all					
2.	As all searchable claims could be searched without effort justifying an additional fee, this Authority did not invite payment of any additional fee.					
3. [_]	As only some of the required additional search fees were timely paid by the applicant, this International Search Report covers only those claims for which fees were paid, specifically claims Nos.:					
4.	No required additional search fees were timely paid by the applicant. Consequently, this International Search Report is restricted to the invention first mentioned in the claims; it is covered by claims Nos.:					
Romark	on Protest The additional search fees were accompanied by the applicant's protest. No protest accompanied the payment of additional search fees.					

Form PCT/ISA/210 (continuation of first sheet (1)) (July 1992)

INTERNATIONAL SEARCH REPORT

Information on patent family members

Interns. .ial Application No PC1, _P 96/05518 ...

			101, -1	
Patent document cited in search report	Publication date	Patent family member(s)		Publication date
WO 9323424 A	25-11-93	AU 669710		20-06-96
		AU 4066293	Α	13-12-93
		CA 2136339	Α	25-11-93
		CN 1085563	Α	20-04-94
		CZ 9402843	Α	17-05-95
		EP 0642530	A	15-03-95
		FI 945416	Α	17-11-94
		HU 71398	A	28-11-95
		HU 9500711	A	28 - 12-95
		JP 7506580	T	20-07-95
		MX 9302927		01-11-93
		NO 944419		09-01-95
		NZ 252147		28-10-96
		SI 9300267	A	31-12-93
DE 4415998 A	09-11-95	AU 2408295	Α	29-11-95
		CA 2189691		16-11-95
		WO 9530690		16-11-95
		EP 0804466	Α	05-11-97
		FI 964446	Α	03-01-97
		HU 75709	Α	28-05-97
WO 9717364 A	15-05-97	AU 7495796	A	29-05-97
WO 9640752 A	19-12-96	AU 6124196	Α	30-12-96
		AU 6124296		30-12-96
		WO 9640751		19-12-96
		HR 960277		31-10-97

Form PCT/ISA/210 (patent family annex) (July 1992)